

## **Challenges associated with the use of social media in sharing academic information by students in Tanzania**

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**Abstract:** The aim of the present study was to examine challenges associated with the use of social media in sharing academic information. The research used the cross-sectional research design. The participants in this study were 120 students at Sokoine University of Agriculture, Tanzania. These participants were chosen through systematic sampling. The data were collected by a questionnaire. SPSS was used for data analysis. Frequency, percentages and mean was the descriptive statistics employed while multiple linear regression was used to determine challenges associated with the use of social media in sharing academic information. The results revealed the challenges affecting the use of social media for sharing academic information in higher education are high cost of airtime, inadequate technical knowhow and slow internet connection.

**Keywords:** Challenges, social media, students, Sokoine University of Agriculture, Tanzania

### **1. Introduction**

Social media are computer mediated technology that facilitates the creation and sharing of information, ideas, career interests and other forms of expression via communities and networks (Edosomwan et al., 2011). Amadu et al.(2018) defined social media as collective of online communication channels dedicated to the community which enable interaction, sharing and collaboration. Social media also refer as forms of electronic communication through which people create online communities to share information, ideas, personal messages, knowledge and thoughts (Rosen, 2007). Examples of social media include Facebook, Wikis, YouTube, Twitter, WhatsApp etc. The development of social media has led to the growth of socialization among individuals in society including students. Currently university students find it very easy to express their thoughts, ideas and beliefs through various social media. The technologies have changed the way most students share knowledge as well as their academic work environment (Kirschner & Karpinski, 2010).Through use of social media students can share various information such as entertainment, social and academic (Kreutz, 2009).

Academic is used to [describe](#) things that relate to the work done in [schools](#), colleges, and universities, [especially](#) work which involves studying and [reasoning](#) (Soanes & Stevenson, 2004). Thus, in this study academic information is defined as the information relate to classroom activities such as conducting assignments, conducting research projects, thesis and dissertation preparation. To increase students' performance, efficient flow of information among students is of a great significance. According to Liu et al. (2020) information sharing among students has a vital role to play in improving their understanding on various issues. With use of mobile phones, practitioners emphasize on students' learning atmosphere which include collective sharing, teamwork, creativity, collaborating dialogue and knowledge creation (Limet al.,2010).Use of social media can play an important role in enabling students to disseminate and share timely and relevant information and, consequently, improve their academic performance. Khattak& Jan (2015) point out that the achievement of high performance of students depends on the availability and accessibility of relevant information. Information sharing by students depends on the reliability and efficiency of dissemination tools in sharing such information. Thus, social media are very efficient and effective, compared to the traditional technology dissemination methods that are normally used by students, such as face to face discussion and printed materials.

The use of social media in sharing academic information among students has been successful in their performance in various countries in the world. For instance, a study by Al-Rahmi & Othman (2013) in Malaysia found that students' use of social media enables them to have collaborative learning through interaction with peers, teachers that increase the students' academic performance. Gray et al. (2010) study in Australia also found that instructors used social media to conduct online discussion among students outside the classes, beyond the traditional class setting. Furthermore, Dale & Pymm (2009) reported that use of social media enabled students and teachers to share and publish information as a result of the learning activity (e.g., course materials such as course syllabus, course notes, assignments, test cases, etc) and invite feedback from peers. Another study in Nigeria by Asemah et al. (2013) reported that social media are used by students to discuss education issues but also national issues like politics, economy, and religion. Yeboah & Ewur (2014) study in Ghana found that internet-based tools such as social media promoted collaboration and information sharing among students. Nevertheless, students' efforts to use social media for sharing academic information for improving their performance are confronted with some challenges.

Moreover, it has been shown through literature that many studies that have been carried out in Tanzania so far on social media use by students have concentrated either on the extent of use of mobile phones in sharing academic information (Mtega et al., 2012), extent and purposes of social media uses (Matto, 2015),mobile social media application (Baelden & Van Audenhove, 2015)or the

role of social media in improving students' performance (Kibona & Rugina, 2015; Kibona & Mgaya, 2015). However, none of the studies have focused on challenges facing students on the use of social media in sharing academic information and relationship with its degree of usage in Tanzania. To fill the gap the present study examines challenges associated with the use of social media in sharing academic information by students. Knowing challenges facing students on using social media for sharing academic information it that may be used by educators to improve learning environment for students through use of social media on sharing academic information. The study had the following research questions;

1. To determine the extent of social media usage for sharing academic information
2. To assess the challenges facing students in the use of social media for sharing academic information.
3. To examine the relationship between challenges facing students in the use of social media for sharing academic information and their degree of social media usage

## **2. Methodology**

The study was conducted at Sokoine University of Agriculture in Morogoro municipality. This is among the major public university in Tanzania. This study employed cross-section research design where data was collected once at a time. *The study* involves collecting data from a study population at one time. Multi-stage sampling was employed. First stage involved random selection of six-degree programs. Second stage involved selection of respondents. This was involved development of sampling frame which was the current list of the students on the selected program. Systematic random sampling was used to select 20 from each of the selected programs to make a total of 120 respondents. According to Saunders et al. (2007), the sample size of 30 or more will usually result in a sampling distribution that is very close to the normal distribution, and the larger the absolute size of a sample, the closer its distribution will be the normal distribution. Thus 120 respondents are enough to make general conclusion.

The main instruments for data collection were questionnaire and focus group discussion. The questionnaire contained questions according to the specific objectives of the study. Three-point Likert scale was used to determine the degree of using social media for sharing academic information with response options of used frequently, rarely, and never coded as 2, 1 and 0 respectively, on the following dimension: Conducting assignments with colleagues, group discussion, reminder on lectures, communicate with instructors and searching information. The values were added to obtain 3, which was divided by 3 to get a mean score of 1.0 ( $2+1+0=3/3=1$ ). Mean scores (mean cut-off point) of 1.0 or above were classified as most often used, while scores less than 1.0 were

regarded otherwise. Likewise, to determine the challenges encountered on the use of social media by students, the students were presented with list of challenges and requested to state the degree to which such challenges hinder the use of social media in sharing academic information using a four-point Likert-type scale of 4 = major challenge, 3 = moderate, 2 = low and 1 = not at all. The values were added to obtain 10, which was divided by 4 to get a mean score of 2.5. ( $4+3+2+1 = 10/4 = 2.5$ ). Mean scores of 2.5 or above were classified as major challenge while those that are less than 2.50 are categorised as not a challenge. This method of calculating the mean score (mean cut-off point) was adopted by various scholars such as Benard et al. (2020), Mwalukasa(2013)and Nenna (2016). To determine the reliability of the research instrument, the instrument was pre-tested using 20 students before being distributed among those in the main sample. Using the Spearman-Brown split-half Cronbach's alpha, the reliability of the instrument was found to be 0.78, which is considered reliable according to Hair *et al.* (2013).

The quantitative data was coded on the Statistical Package for Social Sciences (SPSS).The researcher utilized descriptive statistics, such as frequencies, percentages and mean. In addition, linear regression modelwas used to analyse the relationship between challenges encountered by students on sharing academic information and their degree of social media usage. Multiple linear regression was used because the dependent variable is average access score on use of social media for sharing academic information.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon$$

where:

$\beta_0$  = Y intercept,

$\beta_i$  = regression coefficients,

$X_s$  = a set of predictors.

Y = dependent variable is the average sharingscore on use of social media for sharing academic information

$X_1$ - $X_{11}$  are explanatory variables

$X_1$  = Age was measured in years.

$X_2$ = sex coded as 1 female,0 male

$X_3$ =year of study(1-First, 2-second, 3-Third, 4-Fourth, 5-Fifth).

$X_4$ =Experience of owning mobile phone measured years.

$X_5$  to  $X_{11}$  (Challenges: lack of support from friends and students, high cost of airtime and bundle, inadequate technical knowhow, low capacity of mobile phone, lack of training on use of social media, lack of awareness on the use of social media in sharing academic information measured 4 = major challenge, 3 = moderate, 2 = low and 1 = not at all).Prior to run linear regression the following assumption was tested: multicollinearity, autocorrelation and homoscedasticity. One way analysis of variance (ANOVA) was used to test significance difference on the mean for challenges encountered by students on using social media for sharing academic information. Duncan Multiple Range

Test (DMRT) was used as post hoc for determine significance difference of the mean of the challenges at  $p \leq 0.05$ .

### 3. Results

#### 3.1 Socio demographic characteristics of respondents

Table 1 shows distribution of the respondents according to their demographic characteristics. Results show that more than half (58.3%) of responders were male while only 41.7% of respondents were female. This implied there were higher proportions of male respondents than female. This implies that comparatively few female students are enrolled to pursue science programmes in study area than males. These findings are similar with those of studies by Sanga et al. (2013); Mahenge & Sanga (2016) carried in Tanzania, which reported that there were few females' students in higher education institutions. Generally, the number of males' students at institutions of higher learning is higher than that of females' students.

Again, more than one third (47.5%) of respondents indicated that their age ranged from 18 to 22. The implication here is that more young students were involved in the study. High distribution of respondent's age between 20 to 22 could be due to reasons that 18-22 comprises of the age in which most of young students complete their Advanced certificate education and join higher education. Young respondents would easily adopt use of ICT to share information than older adults (Kanney et al., 2014).

Furthermore, more than half (56.7%) of the respondents reported that their experience of owning mobile phone ranged from 3 to 5 years. Experience of owning mobile phones experience is an advantage for adoption of technology, since it encourages rapid adoption to innovations (Lu et al., 2003). This can have an influence on the use of social media for sharing academic information.

**Table 1: Socio demographic characteristics of respondents (n=120)**

Variable	Categories	n	%
<b>Sex</b>	Male	70	58.3
	Female	50	41.7
<b>Age</b>	18 - 20	57	47.5
	21 - 24	43	35.8
	More than 24	20	16.7
<b>Year of study</b>	1 and 2	65	54.2
	3 and 4	51	42.5
	5	4	3.3

#### 3.2 The extent of social media usage for sharing academic information

*The findings in Table 2 show the extent of social media usage in sharing information by academic information by students in the study area. The results reveal that the most students in the study area used social media for group discussion (90%), followed doing assignments (82.5%) and students reminding*

other students on lectures time and venues (78.3%). Furthermore, few, (33.3%) used social media to communicate with instructors. In addition less than half (45.8%) reported to use social media to access academic information.

**Table 2: The extent of social media usage for sharing academic information**

Usage	Frequent		Rarely		Never	
	n	%	n	%	n	%
Assignment with colleagues	62	51.7	37	30.8	21	17.5
Group discussion	63	52.5	45	37.5	12	10.0
Reminder on lectures, venues	64	53.3	30	25.0	26	21.7
Communicate with instructors	21	17.5	19	15.8	80	66.7
Online searching	15	12.5	40	33.3	65	54.2

### 3.3 The challenges facing students in the use of social media for sharing academic information among students

Table 3 summarizes the challenges encountered by students in using social media for sharing academic information. The findings revealed that the major challenges facing students in sharing academic information using social media include lack of awareness on the use of social media in sharing academic information ( $M=3.61$ ) and high cost of airtime bundle ( $M = 3.57$ ) which are more significant than other challenges  $p<0.05$ . Other challenges include slow internet connection ( $M = 3.20$ ), lack of training on use of social media ( $M = 3.07$ ), low capacity of mobile phone ( $M = 2.46$ ). Furthermore, results show that other challenges include lack of skills, lack of support from friends and students as indicated in Table 3. It was also evidenced through FGDs high cost of buying the bundle and lack of funds as challenge encountered by students on using social media for sharing academic information. Thus most of the respondents owned more than one mobile phone so that they can subscribe to different mobile service provider. It was observed that some mobile services provider has special mobile chip for students and which provide them with cheap internet package for the students who want to surf the internet with high speed with unlimited speed.

**Table 3: The challenges facing students in the use of social media for sharing academic information among students**

Challenges	Mean
High cost of airtime and bundle	3.57 <sup>a</sup>
Inadequate technical knowhow	3.25 <sup>b</sup>
Slow internet connection	3.20 <sup>c</sup>
Low capacity of mobile phone	2.46 <sup>d</sup>

Lack of training on use of social media	3.07 <sup>c</sup>
lack of awareness on the use of social media in sharing academic information	3.61 <sup>a</sup>
Lack of support from friends and students	3.04 <sup>c</sup>

**3.4 The relationship between challenges facing students in the use of social media for sharing academic information among students and their degree of social media usage**

In addition, the study sought to determine whether the challenges faced students in sharing academic information influence the degree of social media usage for academic purpose. The findings are presented in Table 4. The results showed that the variation Inflation factor (VIF) of all independent variables ranged from 1.09 to 3.22 which is less than 10 implying that do not problem of multicollinearity according to Hair et al. (2013). Furthermore, Durbin Watson was 2.01 which fall with the acceptable range of falls within the values of  $1.5 < d < 2.5$  (implying that there is no auto-correlation) (Kutner *et al.*, 2005). Hence, there is no auto-correlation in the multiple linear regression data. In additional the scatter plot of the regression standardized residue and regression standardized predicted value look like a random array of dots evenly dispersed around zero, this imply that data do not have problem of homoscedasticity. In addition, the R square value in the model was 0.43. This implied that independent variables in the model accounted for at least 43% of the use of social media for sharing academic information by the students.

Furthermore, the results indicate that high cost of air time, lack of training on use of social media, inadequate technical knowhow were significant at  $p < 0.05$  and negative related to the degree of social media use in academic information sharing. Furthermore, the study included control factors which are the socio-demographic characteristics of students. The results shows that experience of owning mobile phone were positively significant with use of social media for sharing academic information at  $p < 0.05$ .

**Table 4: The between challenges facing students in the use of social media for sharing academic information among students and relationshiptheir degree of social media usage**

Variable	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	2.778	.412		6.743	.000		
Age	.007	.015	.036	.460	.647	.835	1.197

Sex	-	.067	.068	-.074	-.980	.329	.915	1.093	
Year of study	.057	.031	.148		1.852	.067	.823	1.215	
Experience of owning mobile phone	.007	.016	.031		2.408	.004	.916	1.091	
Lack of support from friends and students	-	.030	.038	-.065	-.782	.436	.770	1.299	
Lack of training on use of social media	-	.085	.034	-.214	-	2.500	.014	.717	1.396
High cost of airtime	-	.078	.050	-.202	-	3.556	.012	.310	3.227
Inadequate technical knowhow	-	.132	.045	-.336	-	2.954	.004	.405	2.466
Slow internet connection	-	.084	.044	-.220	-	2.917	.050	.399	2.508
Low capacity of mobile phone	-	.055	.047	-.142	-	1.169	.245	.354	2.826
Lack of awareness	-	.006	.037	-.013	-.154	.878	.735	1.360	

R=659; R Square=.434; Adjusted R Square=.376; F11, 108 0.05=0.000; Durbin-Watson=2.001.

#### 4. Discussion

##### 4.1 The extent of social media usage by students in sharing academic information

The findings indicate that use of social media for conducting the group discussion were most frequently used. The reasons behind its high usage could be described by the fact that social media can easily enable students scattered on different areas of the campus to share and discuss the issues more easily. This was evidenced during the FGD where it was reported out that most students preferred to use social media for group discussion more frequently because they are more convenient. For example, during the FGD, one student pointed out: With a social media I can participate in group discussions by giving out my contribution on the discussion even when am far from university campus.



Further analysis revealed that most of students used social media to share with their colleague when doing assignment. The high degree of use social media is explained by reason that social media are easily accessed through mobile phones which are affordable, available, easily accessible, and facilitate a two-way communication for students to look for some more clarification and get immediate answers. One student during FGD reported that with social media, students don't need to travel to visit fellow students located far away to share the information with regard to different assignments given to them.

Similarly, another respondent reported that they use social media to communicate and share information with their class representative about reading materials, lecture notes and slides provided by their instructors. The respondent explained that, with social media, you don't need to meet with class representative. We chat on social platform with class representative to receive the presentation slides from instructors, update on change of venue or postponed of the lecture session to the class representative. The findings of this study concur with study by Howard et al. (2018) which highlight that social media are among the popular application used by students because of their ability to create link with students. Thus, social media is very important in enabling students to share academic information. In view of that, Al-Rahmi & Othman (2013) reported that students who use social media are likely to have collaborative learning as they interact with peers and teachers to improve students' performance.

Despite the fact that most of instructors use social media, however, few students mentioned to have used social media to share academic information with instructors as compared to fellow students (Table 2). This observation slightly differs with the results of Rahmi & Othman (2013) in Nigeria who report that the majority of the students used social media to interact with teachers. This slight variation of the extent in social media use by students to share academic information with teachers use can be explained by the hesitancy of the instructors to use social media to share academic information with students. Kennedy et al. (2008) asserts that teachers sometimes are not up-to-date and could not know how to incorporate and take advantage of social media into their teaching activities.

Furthermore, few respondents reported to use social for searching academic information. Among the reason mentioned was the lack of awareness various sways and social media tools for accessing academic information. This is similar with the study by Amadu et al. (2018) and Asiedu, & Badu. (2018) in Ghana who stated that the few of the students used social media such as Youtube and wikis for online searching. Similarly, the study by Ogbomo and Ivwighrehweta (2018) in Nigeria revealed that few of the students used Youtube, Google+, Wikipedia to access information.

#### **4.2 The relationship between challenges encountered by students in using social media for sharing academic information and their degree of social media usage**

The study found that high cost of recharging credits for bundle for an internet were significant at  $p < 0.05$  and negative related to the degree high cost of bundle social media use in academic information sharing. This implies that as the cost of bundle for internet increases, the degree of social media usage in sharing academic information by students' decreases. This relationship was confirmed during FGD. For instance, one farmer pointed out: I sometimes when I don't have money to bundle to connect to an internet hence at this point I just use mobile phone to call and send short message service(SMS) and failure to use social media which require an internet connection. This suggests that the high cost buying bundle affects negatively the frequency of using social media in sharing academic information. This is similar to the study by Madge et al. (2019) and Chiwinga (2017) which found that among the challenges faced students on using social media includes cost of internet data bundles.

Likewise, slow internet connection was significant at  $p < 0.05$  and negatively related to the degree of social media use for sharing academic information. This implies that students who face more challenges on internet connection are more likely to reduce their degree of social media use for sharing academic information than others. In view of this, Ayar et al. (2018) highlights that the effectiveness social media depends on much on how strong internet connection signals is in that particular location. Similarly, study by Chawinga (2017) found that among challenges faced students to use social media to facilitates teaching and learning include poor bandwidths.

Likewise, lack of training and literacy on social media use was significant at  $p < 0.05$  and negatively related to the degree of social media use for sharing academic information. This implies that students who are less exposed to various ICTs training, including use of social media, are more likely to reduce the extent of using social media for sharing academic information This might have explained by the fact that training enable and individual to gain knowledge and hence motivating and increasing the level of technology usage. The result concur with the study conducted by Gammon & White (2011) which found that lack of training and exposure to use internet apprehended students from using them in sharing academic information.

Similarly the study by Zeinolabedini et al. (2020) in Iran revealed that among the factors affecting the use of mobile learning in higher education includes technical and technological factors.

Lastly lack of awareness on the use of social media was significant  $p < 0.05$  and negatively related to the degree of social media in sharing academic information. This implies that students who are not more aware of the use of social media on information sharing are more likely to reduce their degree of its

usage in sharing academic information than their colleagues. This could be explained by the fact that awareness is an important component in promoting the use of any technology. In supporting this, Sabah (2016) and Rahman & Sloan (2017) state that awareness on any given technology is a key to aspect in adoption and use of the technology by an individual.

## **5. Conclusions**

The major intention of this study was to examine use of social media in sharing academic information among students at Sokoine University of Agriculture. It's clear from the findings that's students use social media to share academic information. The study concludes that use of social media to share academic information among the students in university is low. However, the findings revealed that students faced several challenges in social media for sharing academic information which found to be negatively affecting its extent of usage. These challenges include high cost of bundle, lack of training, and lack of awareness on use of social media on sharing academic information. This situation can have negative impact on students' ability to share academic information, consequently, can cause low academic performance. Therefore, to ensure the challenges facing students in use of social media for sharing academic information are being solved, the study recommends the following:

1. The findings recommended that educations should provide training to students on use of social media for sharing academic information. This can involve educating students to get skills about sharing information such as attachment/upload/post and downloading and editing documents through various social media
2. The government and internet service provider should establish more ICTs infrastructures for enhanced reliable internet connectivity to promote their usage.
3. Jointly, the government, in collaboration with mobile phone telephone providers, should reduce cost of internet bundle this can be achieved through provision of special offer to students.
4. To improve wireless university compound; because not all students can afford the cost of subscribing for internet data all the time.

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